



Duke Energy Progress: Prepay Pilot Program Final Report

March 2014

- Docket No: 2009-190-E



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Prepay Pilot Program Timeline

Date	
02/17/12	Duke Energy Progress (DEP) filed request to offer Prepay Pilot Program in SC.
03/27/12	DEP refiled Prepay Pilot Program with revisions.
04/11/12	SC approved DEP Prepay Pilot Program. <ul style="list-style-type: none">• Program to be partially funded by the Department of Energy American Recovery and Reinvestment Act (AARA) grant.• DEP to apply for recovery of program costs through its DSM/EE Rider. The ORS and the Commission will evaluate the requested costs at that time.
07/20/12	DEP submitted request to expand access to all SC customers and to allocate all of the AARA funding to SC in order to fully fund the program. <ul style="list-style-type: none">• DEP did not receive approval from NC to offer the Prepay Pilot Program.
08/15/12	SC approved DEP's request to expand access to all SC customers and for all program costs to be funded by the AARA grant.
08/16/13	DEP submitted request to terminate the Prepay Pilot Program early.
09/11/13	SC approved DEP's request to terminate the Prepay Pilot Program early. <ul style="list-style-type: none">• DEP to submit a final report by March 5, 2014.
12/31/13	DEP Prepay Pilot Program ended.
03/05/14	DEP submitted Prepay Pilot Program final report.

Background

Duke Energy Progress Prepay Pilot Program

- Prepay is an alternative to a monthly bill with a pre-determined payment due date that allows a customer to deposit a lump sum into an account where charges are deducted in real time as energy is consumed. Service deposits are not required when enrolling into this program. As the account balance diminishes, customers may deposit additional funds to continue consuming energy with no break in service.

Prepay Pilot Program Objectives

- Measure and validate achieved energy savings
- Understand the drivers and persistence behind the associated energy savings
- Examine customer behavior
- Determine the market for Prepay
- Determine customer motives
- Evaluate customer preferences regarding payment channels and communication methods

Objectives – Energy Savings

- Measure and validate achieved energy savings

Program Duration

May 2012 – December 2013

Sample

- 36 Prepay pilot participants
- At least 12 months of kWh usage data was collected for months between June 2011 and August 2013

Analysis Methodology

- A Linear Fixed Effects Regression (LFER) model was estimated in an effort to tease out the effects of the prepay pilot on the participant's monthly usage.

Results

The model showed that program participants used on **average 5.3% less energy** during months enrolled in the program than they did in months off the program. However, the difference in usage between pre and post enrollment for the program participants was not statistically significant at the 95% confidence level.

Objectives – Drivers & Customer Behavior

- Understand the drivers and persistence behind the associated energy savings
- Examine customer behavior

Post Prepay Pilot Program survey revealed:

- There was no consistent trend in participants' energy-saving actions. However, since enrolling in the program, participants increasingly tended to turn off power strips when not in use, run certain appliances during cooler parts of the day or when drapes were used during summer days.
- For other household actions, there was very little change in behavior since participating in the program.
- When compared to the participants' experience before the Prepay Pilot Program, significantly fewer participants had to forego comforts or necessities to pay for their electricity during the Prepay Pilot Program.
- Participants indicated that the program significantly helped them to better manage their energy use or budgets without sacrifice.
- Overall, participants felt they have been influenced by the program, yet it was inconclusive whether the program had significantly impacted respondents' behavior.

Objectives – Prepay Market & Customer Motives

- Determine the market for Prepay
 - Although DEP did not target any particular demographic in designing the Prepay Pilot Program, the process evaluation revealed the general demographics were
 - English-speaking customers between 30-60 years old
 - Rented their homes
 - Typical household had 4-6 members
 - Household income below \$50,000 per year
 - 75% received some higher level of education
- Determine customer motives
 - The general participants' motivations were the following:
 - Save money
 - Better manage finances and budget
 - Track and better understand energy usage
 - Avoid huge monthly bills
 - Avoid paying disconnection fees
 - Have the ability to pay any amount at any time

Objectives – Customers' Preferences

- Evaluate customer preferences regarding payment channels and communication methods
 - Preferred payment channels
 - In person at an authorized payment location
 - Phone
 - Online
 - MoneyGram
 - Mail
 - Preferred communication methods
 - Email
 - Text messages
 - Telephone calls

Learnings

Customer learnings

- Participants viewed the Prepay Pilot Program as a means to take control of their bills and save money and energy.
- Customers were aware of potential operational savings for DEP.
- Participants were generally satisfied with their electric service prior to the program. At the conclusion of the program, the participants reported increased satisfaction with their prepay experience and DEP overall.
- Participants felt enhanced understanding of ongoing usage allowed them to not have to sacrifice comfort due to uncertainty of energy costs.
- At the conclusion of the program, all participants stated that they would recommend DEP's Prepay Pilot Program to other customers. However, none of the participants expressed a willingness to pay for access to such a program.

Technology/operation learnings

- Areas with poor cellular coverage led to technical challenges and early terminations from the program.
- Consider the use of new technology for future programs. For example, the use of new Advanced Metering Infrastructure (AMI) technology may allow for an easier program roll out and a mobile application in place of an in-home display may increase ease of use for customers.
- Streamline the operational process to provide higher quality customer service and issue resolution.